

ABSTRACT

The Jagir River is a stream of rivers that holds waste from various sources such as settlements around rivers, industries, or even offices. This leads to a water content that does not match the standard quality of wastewater, ranging from experiencing turmoil to high levels of TDS in river water. If left alone, it would cause health problems to the people around the river that uses the water. The study was aimed at reducing the level of ruggedness and TDS in river water using natural coagulants, i.e. extra straw leaves and bamboo leaves. These coagulation processes, each using doses of 0.5 mL, 1 mL and 3 mL of koaglan, extra strobus leaves, and bambou leaves with sedimentation times of 30 minutes, 60 minutes, and 90 minutes. The results of this study show that extra clove leaf coagulation can decrease the turbidity rate by 14% with a total of 2.62 NTU i.e. in a dose of 0.5 mL with sedimentary leaves for 30 minutes, and decreases the TDS level by 337 mg/L at a 1 mL dose with a sedimentation time of 90 minutes. The extra bamboo leaf coagulant reduces the turbidity rate by 56% by a total of 7.86 NTU i.e. at a dose of 1 mL with a sedimentation time of 30 minutes and can reduce TDS levels by 342 mg/L at a dosage of 1 ml with a Sedimentation Time of 30 Minutes.

Keywords: *Turbidity, extra straw leaf coagulation, extra bamboo leaf koagulation.*